

REMARKS

Upon entry of the present amendment, claims 1 and 3-8 will remain pending in the above-identified application and stand ready for further action on the merits. Claim 1 has been amended to clarify that the aqueous sodium hydroxide solution consists of water and sodium hydroxide. The instant amendment made herein to the claims does not incorporate new matter into the application as originally filed. Further, the instant amendment does not raise substantial new issues for the Examiner's consideration and require no further search on the Examiner's part. At the same time, the instant amendments put the pending claims in condition for allowance and into a more proper format for issuance in a United States patent, by overcoming all outstanding rejections and objections of record.

Proper consideration of each of the pending claims (i.e., claims 1 and 3-8) is respectfully requested at present, as is entry of the present amendment.

Claim Rejections under 35 USC § 102

Claims 1-5 have been rejected under 35 USC § 102(b) as being anticipated by GB '355 (GB 600,355). Reconsideration and withdrawal of these rejections is respectfully requested based upon the following considerations.

The Present Invention and its Advantages

The present invention relates to a method for modifying fibers. Objects of the invention are, for example, to eliminate or minimize the toxic problem of carbon disulfide, ensure ease of dissolution, and achieve significant effects of modifying moisture absorption, antistatic and

shrink resistant properties as compared with the conventional method of coating fibers with regenerated cellulose.

Further, according to the present invention, the fibers are effectively modified so as to exhibit improved moisture absorption, antistatic and shrink resistant properties minimizing the problem of carbon disulfide.

Specifically, as recited in claim 1, the present invention is directed to:

*A method for modifying fibers, comprising the steps of:
applying a solution of a low substituted cellulose ether having a molar degree of substitution with alkyl and/or hydroxyalkyl groups in the range of 0.18 to 0.7 in an aqueous sodium hydroxide solution to fibers, and
causing the solution borne on fibers to coagulate,
wherein said low substituted cellulose ether is at least one selected from the group consisting of low substituted methyl cellulose, low substituted ethyl cellulose, low substituted hydroxypropyl cellulose, low substituted hydroxypropyl methyl cellulose, low substituted hydroxyethyl methyl cellulose and low substituted hydroxyethyl ethyl cellulose, and
the aqueous sodium hydroxide solution consists of water and sodium hydroxide.*

Distinctions over GB '355 (GB 600,355)

GB '355 fails to disclose or suggest “the aqueous sodium hydroxide solution consists of water and sodium hydroxide”, which is a feature of the present invention as recited in claim 1.

At page 2, line 2 from the bottom to page 3, line 2 of the Office Action, the Examiner states that a aqueous alkaline solution is described in Example 4 on page 3, lines 51-61, and it

contains a concentration of methyl cellulose in an amount of 6 wt % and sodium hydroxide (caustic soda) as the alkali in an amount of 8%.

However, Example 4 of GB '355 describes "six parts of methyl ether of d.s. 0.2 is added to 100 parts of a solution containing 8 parts of caustic soda, 2.5 parts of dissolved zinc oxide and enough water to make 100 parts". (Emphasis added. See page 3, lines 52-56 of GB '355.)

Therefore, the alkali solution of Example 4 contains caustic soda and zinc oxide to produce sodium zincate by the reaction of caustic soda and zinc oxide. Thus, methyl ether is dissolved in the sodium zincate. (See also page 2, lines 60 to 67 of GB '355.)

On the other hand, the alkali solution of the present invention contains neither zinc oxide nor a sodium zincate solution, but contains only sodium hydroxide in water. (From the chemical common sense, the sodium hydroxide can be ionized in water, and thus the state where the sodium hydroxide is ionized in water is also encompassed by the present invention). Namely, in the present invention, a cellulose ether is dissolved in an alkali solution consisting of sodium hydroxide and water.

Further, GB '355 fails to disclose or suggest specifically the specific low substituted cellulose ether, such as low substituted methyl cellulose, low substituted ethyl cellulose, low substituted hydroxypropyl cellulose, low substituted hydroxypropyl methyl cellulose, low substituted hydroxyethyl methyl cellulose and low substituted hydroxyethyl ethyl cellulose. GB '355 merely discloses use of hydroxyethyl cellulose ether.

Therefore, the present invention (independent claim 1 and dependent claims 3-8) is not anticipated by GB '355 reference.

Additional Consideration

As mentioned above, the cited reference fails to disclose or suggest the specific features as recited in independent claims 1. Therefore, a *prima facie* case of obviousness is not established by the cited reference. Further, since GB '355 describes the alkali solution contains zinc oxide to produce sodium zincate, GB '355 teaches away the present invention, a feature of which is "the aqueous sodium hydroxide solution consists of water and sodium hydroxide". Likewise, it follows that a person having ordinary skill in the art would not be motivated by any of the teachings of the cited references to arrive at the present invention as instantly recited in pending claims 1.

Accordingly, the present invention (independent claim 1 and dependent claims 3-8) is not obvious over the cited references.

CONCLUSION

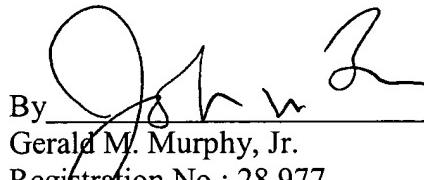
Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of pending claims 1 and 3-8 are allowed and patentable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gerald M. Murphy, Jr. (Reg. No. 28,977) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated:

Respectfully submitted,

By 
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